

**System and Method for Task Queue Management of
Virtual Devices Using a Plurality of Processors**

ABSTRACT

A task queue manager manages the task queues
5 corresponding to virtual devices. When a virtual device
function is requested, the task queue manager determines
whether an SPU is currently assigned to the virtual device
task. If an SPU is already assigned, the request is queued
in a task queue being read by the SPU. If an SPU has not
10 been assigned, the task queue manager assigns one of the
SPUs to the task queue. The queue manager assigns the task
based upon which SPU is least busy as well as whether one
of the SPUs recently performed the virtual device function.
If an SPU recently performed the virtual device function,
15 it is more likely that the code used to perform the
function is still in the SPU's local memory and will not
have to be retrieved from shared common memory using DMA
operations.